KONICA MINOLTA

SERVICE MANUAL

FIELD SERVICE

JS-503

2005.04

KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. Ver. 1.0

After publication of this service manual, the parts and mechanism may be subject to change for improvement of their performance.
Therefore, the descriptions given in this service manual may not coincide with the actual machine.

When any change has been made to the descriptions in the service manual, a revised version will be issued with a revision mark added as required.

Revision mark:

- To indicate clearly a section revised, show △1 to the left of the revised section.
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  A number within ▲1 represents the number of times the revision has been made.

NOTE

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2005/04	1.0	—	Issue of the first edition
Date	Service manual Ver.	Revision mark	Descriptions of revision

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General

1. Product specification

Type	Add-on drawer
Installation	Built into the exit section of the copier
Paper Storage System	Moving drawer system

Capacities

		Upper Drawer	Lower Drawer
Paper Type	Plain paper (60 to 90 g/m^2)	100 sheets (A4/R), 50 sheets (other than A4/R) Load height up to 22 mm	150 sheets (A4/R), 75 sheets (other than A4/R)
	OHP film	10 sheets	20 sheets
	Thick paper (91 to 157 g/m^2)		
	Postcards, labels, and envelopes		
	Recycled Paper (60 to 90 g/m^2)	100 sheets (A4/R), 50 sheets (other than A4/R) Load height up to 22 mm	150 sheets (A4/R), 75 sheets (other than A4/R)

Power Requirements	DC24 V, DC5 V (supplied from the copier)
Power Consumption	24 W or less
Operating Environment	Conforms to that of the copier

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Maintenance

2. Other

2.1 Disassembly/Adjustment prohibited items

A. Paint-locked Screws

NOTE

- **Paint-locked screws show that the assembly or unit secured can only be adjusted or set at the factory and should not be adjusted, set, or removed in the field.**

B. Red Painted Screws

NOTES

- **When the screws are removed, the red paint is coated on the points where readjustment is required.**
- **Once the red painted screw is removed or loosened, you should make adjustment. Accordingly check the adjustment items in operation manual and make necessary adjustment. Note that when two or more screws are used on the part in questions, only one representative screw may be marked with red paint.**

C. Variable Resistors on Board

NOTE

- **Do not turn the variable resistors on boards for which no adjusting instructions are given in Adjustment/Setting.**

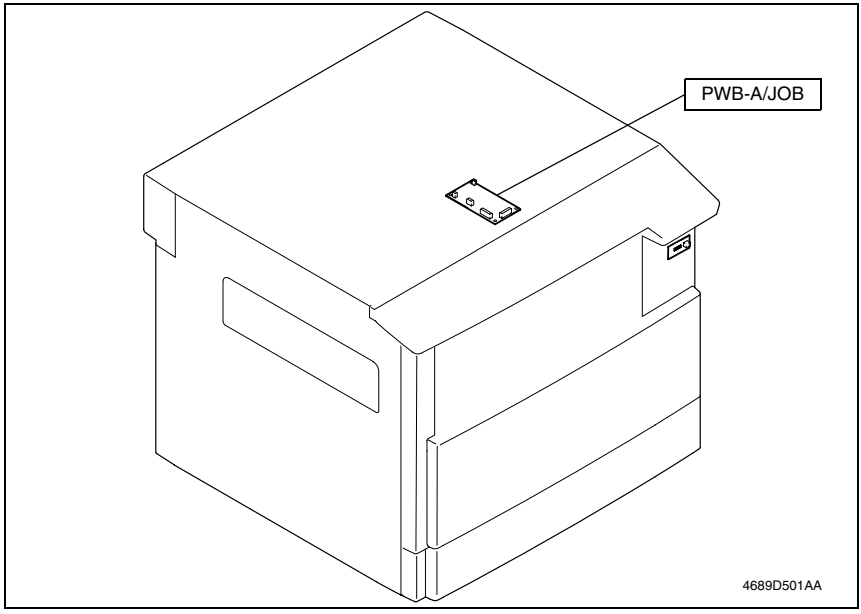
D. Removal of PWBs

NOTES

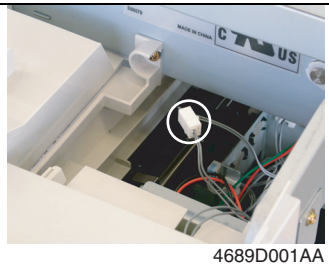
- **When removing a circuit board or other electrical component, refer to "Handling of PWBs" and follow the corresponding removal procedures.**
- **The removal procedures given in the following omit the removal of connectors and screws securing the circuit board support or circuit board.**
- **Where it is absolutely necessary to touch the ICs and other electrical components on the board, be sure to ground your body.**

2.2 Disassembly/Assembly procedure

2.2.1 Control Board (PWB-A/JOB)

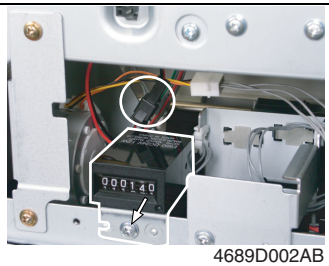


1. Remove the control panel.

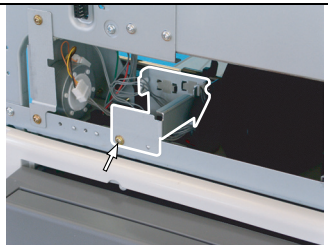


2. Remove the indicator lamp and one connector.

3. Remove the Front Cover, Right Cover, and Paper Exit Cover.



4. Remove one screw, unplug one connector, and remove the Total Counter.



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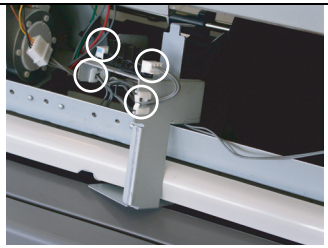
5. Remove one Sensor Assy mounting screw.



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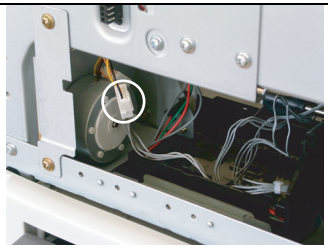
6. Unplug two connectors.
7. Remove the harness from the edge cover and remove the Sensor Assy.



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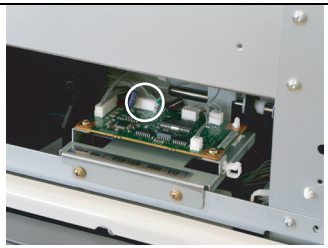
8. Disconnect the connector of the Bin Switching Motor.



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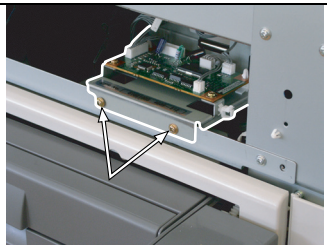
9. Disconnect one connector from the copier.



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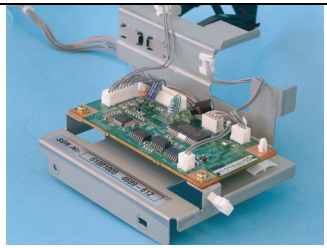
10. Remove two screws and the Control Board Assy.



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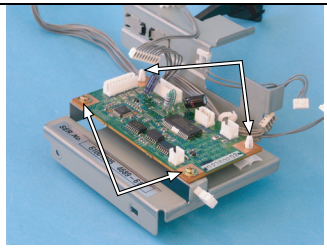
11. Unplug all connectors from the Control Board.



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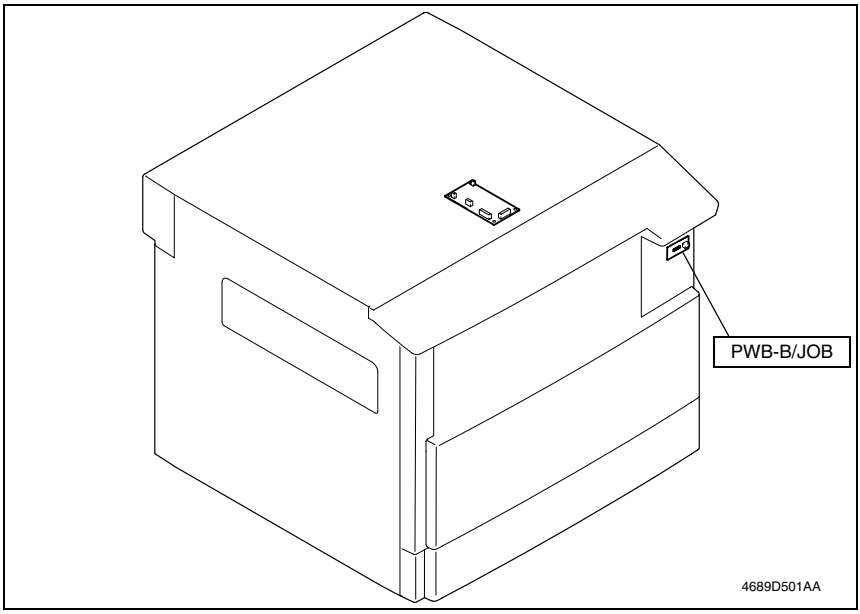
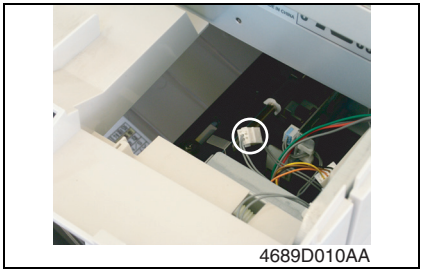
12. Remove two screws, two PWB supports, and the Control Board.

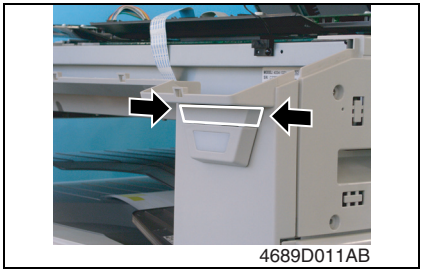
2.2.2 Paper Detecting Board (PWB-B/JOB)



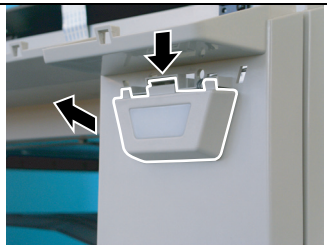
1. Remove the control panel.



2. Unplug one connector.



3. Holding onto both ends, remove the indicator lamp cover.



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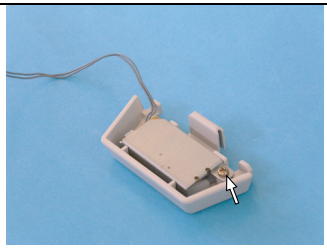
4. Press down one tab and remove the Paper Detecting Board from the Front Cover.



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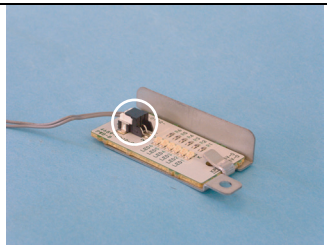
5. Remove one Paper Detecting Board Assy mounting screw.



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6. Unplug one connector and remove the Paper Detecting Board.

Troubleshooting

3. Introduction

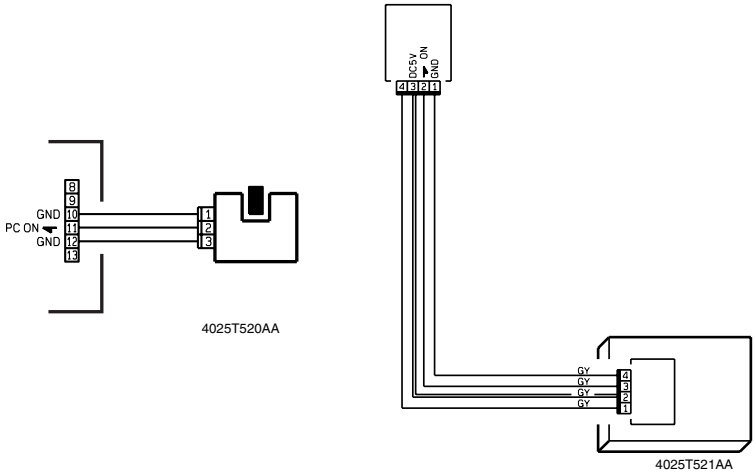
- Information required for troubleshooting and steps that must be performed are described in this chapter.

3.1 Electrical Components Check Procedure

- If a paper misfeed or malfunction occurs, perform the following operations to check the condition of the electrical components.

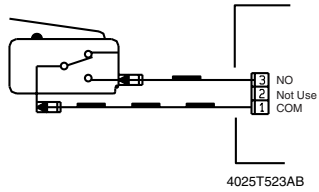
3.1.1 Sensor

Step	Check	Result	Action
1	Does the input signal of the control board change when the sensor light is interrupted? (H → L, L → H)	NO	Replace the sensor.
		YES	Replace the control board.



3.1.2 Switch

Step	Check	Result	Action
1	Does the input signal (NO) of the control board change from L to H when the switch is activated?	NO	Replace the switch.
		YES	Replace the control board.



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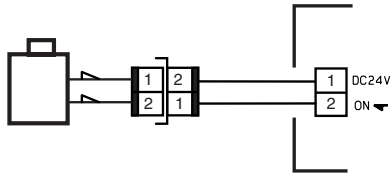
3.1.3 Solenoid

Step	Check	Result	Action
1	Does the output signal of the control board change from H to L when the solenoid is activated?	NO	Replace the control board.
		YES	Replace the solenoid.



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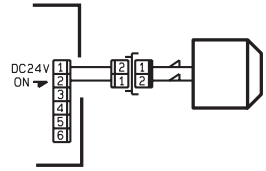
3.1.4 Clutch

Step	Check	Result	Action
1	Does the output signal of the control board change from H to L when the clutch is activated?	NO	Replace the control board.
		YES	Replace the clutch.



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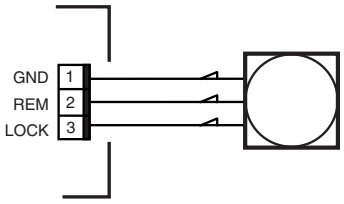
3.1.5 Motor

Step	Check	Result	Action
1	Does the LOCK signal switch to H when the machine goes into standby?	NO	Replace the control board. Replace the motor.
2	Does the REM signal of the master board change from H to L when the motor is turned on?	YES	Replace the motor.
		NO	Replace the control board.



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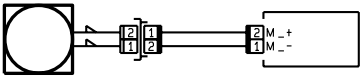
Step	Check	Result	Action
1	Does the input signal of the master board change from H to L when the motor is turned on? (The input signal differs depending on the rotation direction.)	YES	Replace the motor.
		NO	Replace the control board.



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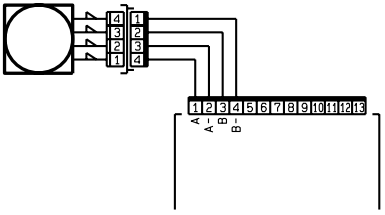
Step	Check	Result	Action
1	Are the relay connector of the motor and the print jack of the control board correctly connected?	YES	Replace the motor or the control board.
		NO	Connect the connector or the print jack.



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4. Jam Display

4.1 Solution

4.1.1 Initial Check Items

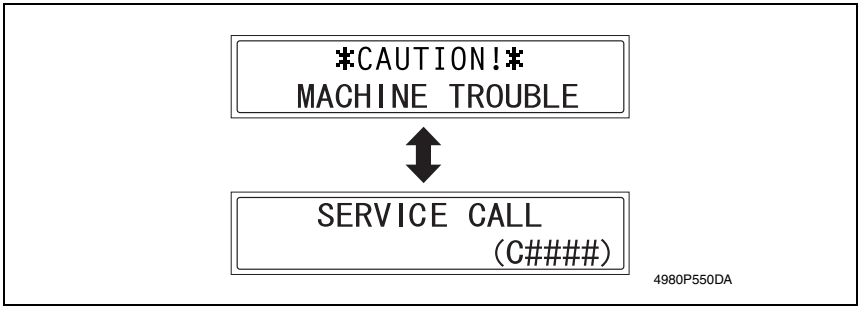
- When a paper misfeed occurs, first perform the following initial checks.

Check Item	Action
Does paper meet product specifications?	Replace paper.
Is the paper curled, wavy, or damp?	Replace paper. Instruct the user on the correct paper storage procedures.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean or change the paper path.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or replace the defective Paper Separator Finger.
Are rolls/rollers dirty, deformed, or worn?	Clean or replace the defective roll/roller.
Are the Edge Guide and Trailing Edge Stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators operational and checked for correct operation?	Correct or replace the defective actuator.

5. Malfunction code

5.1 Trouble code

- The copier's CPU performs a self-diagnostics function that, on detecting a malfunction, gives the corresponding malfunction code and maintenance call mark on the Touch Panel.



5.2 How to reset

Code	Description	Procedure
C0B60	Bin Switching Motor malfunction	• Turn OFF and ON the Power Switch.

5.3 Solution

5.3.1 C0B60: Bin Switching Motor Malfunction

A. Detection Timing

Trouble Code	Description
C0B60	If the Upper Home Position Sensor is LOW during an initial operation: • The Lower Home Position Sensor (PC33) is LOW when the Bin Switching Motor (M1) starts turning forward. • If the Lower Home Position Sensor (PC33) does not go LOW at a time 2.5 sec. after the Bin Switching Motor (M1) has started turning forward, the Bin Switching Motor is kept deenergized for a given period of time and then energized again to turn backward. The Upper Home Position Sensor (PC32) does not go LOW after the motor has started turning backward. • The Upper Home Position Sensor (PC32) does not go HIGH at a time 1 sec. after the Bin Switching Motor (M1) has started turning forward. • When the Lower Home Position Sensor (PC33) goes LOW, the Bin Switching Motor (M1) starts turning backward. The Upper Home Position Sensor (PC32) does not go LOW at a time 2.5 sec. after the motor has started turning backward. • When the Lower Home Position Sensor (PC33) goes LOW, the Bin Switching Motor (M1) starts turning backward. The Lower Home Position Sensor (PC33) does not go HIGH at a time 1 sec. after the motor has started turning backward.
	If the Lower Home Position Sensor is LOW during an initial operation: • The Upper Home Position Sensor (PC32) does not go LOW at a time 2.5 sec. after the Bin Switching Motor (M1) has started turning backward. • The Lower Home Position Sensor (PC33) does not go HIGH at a time 1 sec. after the Bin Switching Motor (M1) has started turning backward.
	If both the Upper Home Position Sensor and the Lower Home Position Sensor are HIGH during an initial operation: • If the Lower Home Position Sensor (PC33) does not go LOW at a time 2.5 sec. after the Bin Switching Motor (M1) has started turning forward, the Bin Switching Motor is kept deenergized for a given period of time and then energized again to turn backward. The Upper Home Position Sensor (PC32) does not go LOW after the motor has started turning backward. • When the Lower Home Position Sensor (PC33) goes LOW, the Bin Switching Motor (M1) starts turning backward. The Upper Home Position Sensor (PC32) does not go LOW at a time 2.5 sec. after the motor has started turning backward. • When the Lower Home Position Sensor (PC33) goes LOW, the Bin Switching Motor (M1) starts turning backward. The Lower Home Position Sensor (PC33) does not go HIGH at a time 1 sec. after the motor has started turning backward.

B. Action

Relevant Electrical Components	
Bin Switching Motor (M1/JOB) Upper Home Position Sensor (PC32/JOB) Lower Home Position Sensor (PC33/JOB)	Control Board (PWB-A/JOB) Master Board (PWB-A)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check sensor connectors for proper connection and correct as necessary.	–	–	–
2	Check M1/JOB connectors for proper connection and correct as necessary.	–	–	–
3	Check M1/JOB for correct drive coupling and correct as necessary.	–	–	–
4	M1/JOB operation check	☞ 11	–	A-16
5	PC32/JOB sensor check	☞ 9	PWB-A/JOB PJ4A/JOB-3 (ON)	B-15
6	PC33/JOB sensor check	☞ 9	PWB-A/JOB PJ4A/JOB-6 (ON)	B-15
7	Change PWB-A/JOB.	–	–	–
8	Change PWB-A.	–	–	–

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